



Stetson Flyer

Stetson Flyers Model Airplane Club

January 2006



Our club president Scott Clarke demonstrating his technique for determining boy planes from girl planes.



Next Meeting

Tuesday, January 31st
7:30 pm

Don't forget your "Bring'n'Brag"!



Rick Williamson (right) won the door prize at the November meeting donated by Richard Robichaud (left) of Discount Hobbies. The kit is a CAP 231 EX Park-Flyer. You never know when a door prize like this will be available at the meeting—a great reason to attend ALL the meetings!

Coming Stetson Events...

January 31 st	Regular Meeting
February 18 th	Winter Fun Fly
February 28 th	Regular Meeting
March 18/19 th	MAAC AGM
March 28 th	Regular Meeting
April 25 th	Regular Meeting
May 30 th	Regular Meeting
June 10 th	Ed Rae Memorial Fun Fly
July 1 st	Display @ Can Av Museum

Our website address: <http://www.stetsonflyers.com>

Club Officials and Contacts

President	Scott Clarke	613-824-5114
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Vice-President	Greg Marshall	613-729-9105
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Mailing Address:

The Stetson Flyers Model Airplane Club
P.O. Box 456, Orleans, ON, K1C 1S8

Web Page:

<http://www.stetsonflyers.com>

Dues:

\$70.00 per calendar year; \$30.00 for students under 18

Meetings

The Stetson Flyers meet at 7:30 on the last Tuesday of each month, except for December, June, July or August. The meetings are held at the Canadian Aviation Museum in the Bush Theatre.

Use the back door to the museum! To get to the back door follow the roads around to the extreme left side of the museum. Pass through the gate in the fence and proceed to the back door.

To receive the newsletter by email, send **your** email address to:
editor@stetsonflyers.com

Please visit our web site at

<http://www.stetsonflyers.com>

Our web site is hosted as a community service by



Magma Communications
EXCEPTIONAL INTERNET

Newsletter Questions and Answers

Receive this newsletter via email!

Instead of sending a printed newsletter by Canada Post, we can send you an email notice with the web site address where you can download the newsletter each month. The file is an Adobe Acrobat PDF file, which means that you need to use a FREE Acrobat Reader software to view or print the document. There is a link to the Adobe site to get the FREE software on our web site.

The benefits to you are faster delivery, colour pictures, less cost to the club, and environmentally friendly to boot!

How do I open the electronic newsletter?

You *the latest version* of the free Adobe Acrobat Reader software installed on your computer. You can download this from:

<http://www.adobe.com/products/acrobat/readstep2.html>

If you are using a dial-up modem, this may take about 30 to 40 minutes to download.

Why do I get errors opening the newsletter?

Most likely you have an older version of Acrobat – perhaps version 3 or 4. Please the install latest version as described above. It usually fixes all the error messages when printing or opening the newsletter.

I used to get emails about club events, but now only get a printed newsletter – what happened?

Mostly likely your email address changed or failed and we were not given a new one. When this happens we revert to printed newsletters. To get back on to electronic distribution, just send an email to editor@stetsonflyers.com. By default, those with email addresses will be notified when the electronic version is ready for download. You can ask to

Meeting Minutes November 29, 2005

Meeting was opened at 7:42 by Ed Whynott, seconded by Bob Butterworth.

CFI Report – No update.

Membership Report – Greg reports 11 new members signed up for 2006. Dues are due January 1st, and no flying at our field without valid MAAC and Stetson Membership.

Newsletter Report – John showed an article published in the Citizen that aircraft manufacturers are trying to claim 15% fees for kits of their aircraft, including older WWII planes where the blueprints are in the public domain. Canwest global refused to allow the article to be published in our newsletter without a similar fee!

Webmaster report – no update

Budget

A motion to accept the 2005 statement of expenses was made by Gerry Nadon and seconded by Andre Matte. Motion passed.

A motion to accept the 2006 budget was made by Gerry Nadon and was seconded by Peter Barns. Motion passed with 2 abstentions.

Events

Ed Rae Memorial Fun Fly June 10th with a June 11th rain date was moved by Gerry Nadon and seconded by Ed Whynott. Motion passed with two abstentions.

Gerry Nadon reported that he will be away during the normal time of the Giant Scale event, so no proposal for a date is made at this time.

A Helicopter Fun Fly was proposed by Ed Whynott for August 12th and seconded by Dave Asquini. Motion passed, 1 against and 1 abstention.

A winter fun fly was proposed by Morris Edkins for February 18th and seconded by Ford Sommerville – motion passed.

Gerry Nadon made a motion that the club participate in the July 1st Canada Day celebrations at CAM, seconded by Dave Asquini. Motion passed with 1 abstention.

Zone Fun Fly – This year's event was lots of work but worthwhile payoff. Had the help of lots of other clubs. This year the event is in Brockville on July 9th. A committee was formed and looking for volunteers to represent each club including the Stetsons.

New Business

A show of hands was asked for to see who would have interest in Stetson lapel pins. Minimum order was 200 pins @ \$3.00 each. Three quarters of those present put up their hands in support of this.

Richard Robichaud suggested the club pursue a Mall Show and offered to assist with locating a venue and helping with expenses. Need a letter from the City of Ottawa attesting that the club is non-profit.

A motion to close the business meeting at 8:40 pm made by Gerry Nadon seconded by Dave Asquini.

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on low to apply a little heat which shrinks the material. I find hair driers much too powerful.

For wings we need to apply dihedral and shrink the material to create an aerofoil. I like to add a rib to each side of the wing. This gives a better aerofoil out towards the tips, and provides small posts around which the rigging can be wrapped. The rigging is set up as a single loop of monofilament nylon with a slip knot. Monofilament nylon is available as "leader material" from fly fishing stores. I use size "6X" which is 0.005" diameter. Flex the wing to a dihedral shape and mount the nylon loop as a figure 8 over the four posts at the wing ribs. The slip knot should be tight enough not to slip by itself. Tighten or loosen the loop to give the required dihedral, and remove any twist from the wing. Put a small drop of CA on the slip knot to lock it, but don't glue it to the frame yet.

Using a suitable heat source heat the material. All wrinkles should disappear, and a cambered aerofoil should develop. If it doesn't then you probably have the direction of the grain in the film running the wrong way, so you will have to strip off the covering and start again. Assuming all is well with the shrinking, tie a short piece of monofilament around the figure eight where it crosses over in the middle. This reduces the ability of the wing to get twisted in a crash or other mishap. Double check for any twist in the wing, and correct if necessary, using a little heat, then apply a very small drop of glue (CA works) at the four points where the monofilament passes over the posts, and at the cross-over knot. The result is a very strong, light wing, resistant to warping and able to withstand repeated unexpected encounters with the ground and other static objects.

Financial Statement for 2005

		Proposed	Actual
Expenses			
	Field lease	\$1,300.00	\$1,284.00
	Field grass cutting	\$900.00	\$1,450.00
	Field maintenance/Improvement	\$2,600.00	\$2,896.01
	Newsletter publication	\$300.00	\$106.52
	MAAC registration	\$25.00	\$25.00
	PO Box	\$105.00	\$111.28
	CFI	\$0.00	\$0.00
	Office supplies	\$100.00	\$0.00
	Web	\$0.00	\$0.00
	Misc. expenses	\$250.00	\$105.82
	Toilet servicing	\$300.00	\$214.00
	MAAC dues paid		\$1,351.00
	Fun Fly Expenses		\$935.83
	Refund		\$70.00
	Total Expenses	\$5,880.00	\$8,549.46
Revenue			
	MAAC dues received		\$1,351.00
	Memberships	\$5,600.00	\$6,250.00
	Fund raising	\$300.00	\$185.95
	50/50 Revenue		\$197.50
	Cloud Tramp		\$35.00
	AT6 Plans		\$100.00
	Coffee		\$20.00
	Fun Fly Revenue		\$1,468.85
	Total Revenues	\$5,900.00	\$9,608.30
	Difference	\$20.00	\$1,058.84

Proposed Budget for 2006

Carry over balance from 2005 \$2,610.82 \$2,610.82

		Proposed	Actual
Expenses			
	Field lease	\$1,300.00	
	Field grass cutting	\$2,000.00	
	Field maintenance/improvement	\$3,000.00	
	Newsletter publication	\$100.00	
	MAAC registration	\$25.00	
	PO Box	\$110.00	
	CFI	\$50.00	
	Office supplies	\$100.00	
	Web	\$0.00	
	Misc. expenses	\$250.00	
	Toilet servicing	\$300.00	
	Total Expenses	\$7,235.00	\$0.00
Revenue			
	Memberships	\$6,300.00	
	Fund raising	\$300.00	
	Total Revenues	\$6,600.00	\$0.00
	Surplus	-\$635.00	\$0.00

**Membership estimated at 90 members for 2005.
Dues to remain at \$70.00**

Covering carbon airframes

Martin Newell

<http://mnewell.rchomepage.com/Techniques/CoveringCarbonAirFrames.html>

August 2004

Here are some techniques useful in covering airframes made of carbon rods, with particular attention to the wings. First the covering material. I have had good results using Reynolds Wrap food covering film. It comes in a variety of colors, though they are not very intense. The material weighs about 16 g/sq.m, so it is not as light as some mylar covering materials that can be as low as 2.2 g/sq.m.

Now the adhesive. Some people recommend using a glue stick, but I don't get on well with that. I use a product called Dave's Flexament, which is intended for sealing the heads of fly-fishing flies. It is a thinned version of a popular household glue called Goop. I'm sure other types of glue would work as well, as long as they can be applied thinly with a brush, and dry to a slightly tacky surface. Contact cement would probably work, but may need to be thinned.

The technique: Cut a piece of covering material an inch or two larger than the frame to be covered. For a wing be sure to orient the chord of the wing across the roll, i.e. the span of the wing should be oriented along the long dimension of the roll. The material has a grain and it is important to get this right for proper shrinking.



Attach the covering material to a springy surface, like a soft blanket or a sheet of foam, using masking tape at the corners. It need not be stretched, but should be smooth. I have used a frame with a 1/2" sheet of foam inside. The edges of the frame are handy for attaching the masking tape.

Paint the boundary of the frame with a thin coat of



adhesive and leave it several minutes to dry. If there is any wet glue it will crinkle the covering material. If in doubt, leave it a little longer. When dry, drop the frame onto the covering material. Gently push down on the frame all around to ensure good contact. The springy surface helps here.

Remove the frame with attached covering from the springy surface and turn it over onto a firm surface. Using a razor or very sharp modeling knife, cut away the covering material around the outside of the frame, very close to the frame. Do this by running the knife against the frame, angled out a little from the vertical, while pulling the excess film away from the frame. Run your finger around the outside of the frame to ensure the edge is stuck down. The covering material does not wrap all the way around to stick to itself. I have only had the covering break loose once, and that was the leading edge of my IFO after about 50 crashes.



For flat surfaces like the tail section you are now done, unless you have some minor wrinkles. For these I use a small electric fan-driven room heater

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Myths and Mysteries Explained The benefit of keeping your power system “within spec”

From Castle Creations “Scribe” Issue #1
Www.castlecreations.com

Welcome to the first of a series of articles exploring some of the “black science” issues of R/C where we explain, in understandable terms, some of the most common technical questions as well as dispel some of the common myths surrounding R/C electronics.

This time we explore one of the most common misconceptions and least understood important concepts in electric R/C. Quite often we see posted online, or within conversations with customers, the fact that they have their power systems propped for “over the limits” of their batteries, ESCs, and motors, but it’s OK because they never actually use full throttle. This is 100% incorrect and the explanation of why involves a simplified example of how a speed controller works.

We’ll break down an ESC’s operation into blocks of one second for simplicity. We see when the ESC is at full throttle, it is as close to an “open circuit” as possible between the battery and motor, and “on” for the full one-second block of time, and drawing full throttle current. Each of these blocks of time stream together, and for a hypothetical example – you read 15 amps on your wattmeter at full throttle. Also for example, you are using a 1050Mah Apogee lipo pack (11 amps of output capability), and a Phoenix-10 controller. At $\frac{3}{4}$ throttle you read 10 amps and the misconception is that if you just stay below $\frac{3}{4}$ throttle (or lower the top endpoint on your throttle channel) then everything is OK. What is really happening is when you are at $\frac{3}{4}$ throttle, there is $\frac{3}{4}$ of every second that the ESC is on, and the last $\frac{1}{4}$ of every second it is off. The wattmeter averages the current readings it’s getting, and is showing you an average current. Furthermore – if we are at 10% throttle, then the ESC is on for 1/10 of a second, and off for the remaining 9/10 of a second. Regardless of how long per second it is off or on, when it is on, it is drawing full throttle current from the batteries, through the controller, and into the motor. So essentially, in an everyday application, you are taxing your batteries, ESC, and motor at full throttle amperage the entire time the system is running, regardless of throttle level. With continued use, the above combination will, at best, most certainly reduce the life span of the lipo pack, the ESC, and the motor.

What you’ll find pleasantly surprising is, if you have a set-up as above, and simply prop down to make your full throttle current 11 amps to bring it “within spec”

for all the components, you’ll end up with the following: A cooler running (more efficient and longer life) motor, more rpm’s to the prop (due to the increased voltage from a happy pack) with no observable loss in power, a lower temperature ESC (more BEC capacity and longer life), and much longer flight times to boot.



So the next time you put together a power system, make sure to prop the system to be within specs on all components of your power system while at full throttle, and enjoy all the longevity and other benefits that come from today’s modern equipment. The days of having to “push everything beyond the envelope” just to get acceptable performance are over. Off the shelf components used within specs are absolutely capable of giving you more power than you’ll ever need.

Shawn Palmer
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Crews out in full force after model airplane crash

The Ottawa Citizen reported on January 16, 2006 that a woman in British Columbia called 911 after seeing a plane go down into a field near the Fraser Highway. The story led to a flurry of media reports,

The Citizen reported that the RCMP sent all their cars and rescue vehicles to the area fearing a small plane or ultra-light had gone down in the field.

What they found instead was a 1.5 metre model Cessna.

Perhaps we should send them the Pranged Pig!